

Avian Influenza (H5N1) Laboratory Fact Sheet
Missouri Department of Health and Senior Services
State Public Health Laboratory
December 2006

Due to the continuing avian influenza A (H5N1) epizootic (animal outbreak) in Asia, and parts of Europe, the Near East, and Africa, the CDC recommends maintaining the enhanced surveillance efforts practiced currently by state and local health departments, hospitals, and clinicians to identify patients at increased risk for H5N1. To date, H5N1 has not been identified among humans in the United States. However, health officials and health care providers must be vigilant in identifying suspect cases. Basic guidelines regarding procedures for handling suspect cases follow.

BEFORE TESTING FOR AVIAN INFLUENZA

Report suspect cases of H5N1 cases to the local public health agency or the Missouri Department of Health and Senior Services (DHSS). At DHSS, contact Eddie Hedrick, Emerging Infections Coordinator, 573/522-8596, or e-mail Eddie.Hedrick@dhss.mo.gov. Evenings, weekends or holidays call 800/392-0272 (24/7). Mr. Hedrick should be contacted while testing for avian influenza is being considered.

After consultation with Eddie Hedrick and determination that testing is necessary, contact the Missouri State Public Health Laboratory (MSPHL) at 573/751-3334 or 800/392-0272 prior to collecting lab specimens. Instructions for collecting and submitting laboratory specimens are at http://www.dhss.missouri.gov/Lab/Virology/sphl_avianflu_instructions.pdf.

Please refer to the CDC interim recommendations for infection control precautions for H5N1 patients at <http://www.cdc.gov/flu/avian/professional/infect-control.htm>.

Influenza H5N1-specific RT-PCR testing conducted under Biosafety Level (BSL) 2 conditions is the preferred method for diagnosis. MSPHL is the recommended site for initial diagnosis and can perform influenza H5N1 RT-PCR testing.

SUBMITTING SPECIMENS

After consultation with state or local officials, specimens should be packaged in a mailer suitable for the transportation of infectious substances. DO NOT use the mailer provided for seasonal influenza surveillance. Complete instructions are at http://www.dhss.missouri.gov/Lab/Virology/sphl_avianflu_instructions.pdf.

Highly pathogenic avian influenza A (H5N1) is classified as a USDA select agent. Any work with the virus (other than commercial rapid diagnostic tests or RT-PCR) must be under stringent Biosafety Level (BSL) 3+ laboratory conditions. Therefore, respiratory virus cultures should not be performed in most clinical laboratories, and such cultures should not be ordered for patients suspected of having H5N1 infection.

IF YOU SUSPECT AVIAN FLU

If a human case of H5N1 influenza is suspected and the case has been tested with a commercial rapid influenza antigen, results should be interpreted with caution. Clinicians should be aware that these tests have relatively low sensitivities. A negative result does not exclude a diagnosis of influenza H5N1. In addition, a positive result does not distinguish between seasonal and avian influenza A viruses.

Additional information is on the DHSS Pandemic Influenza website at <http://www.dhss.mo.gov/PandemicInfluenza/index.html> or at <http://www.cdc.gov/flu/avian/>.